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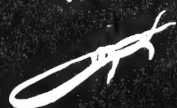
Simple Directions for the use of TERMITGAS for the  
destruction of SUB-TERRANEAN TERMITES

by CHAS. H. LEWIS, B. Sc., Chemist

# TERMITES

## TERMITGAS

Reg. U. S. Patent Office



**A LIQUID  
DESTROYS TERMITES!**

**YOU APPLY IT YOURSELF**

**SAFE—SIMPLE TO USE**  
**Non-Inflammable—Effective**

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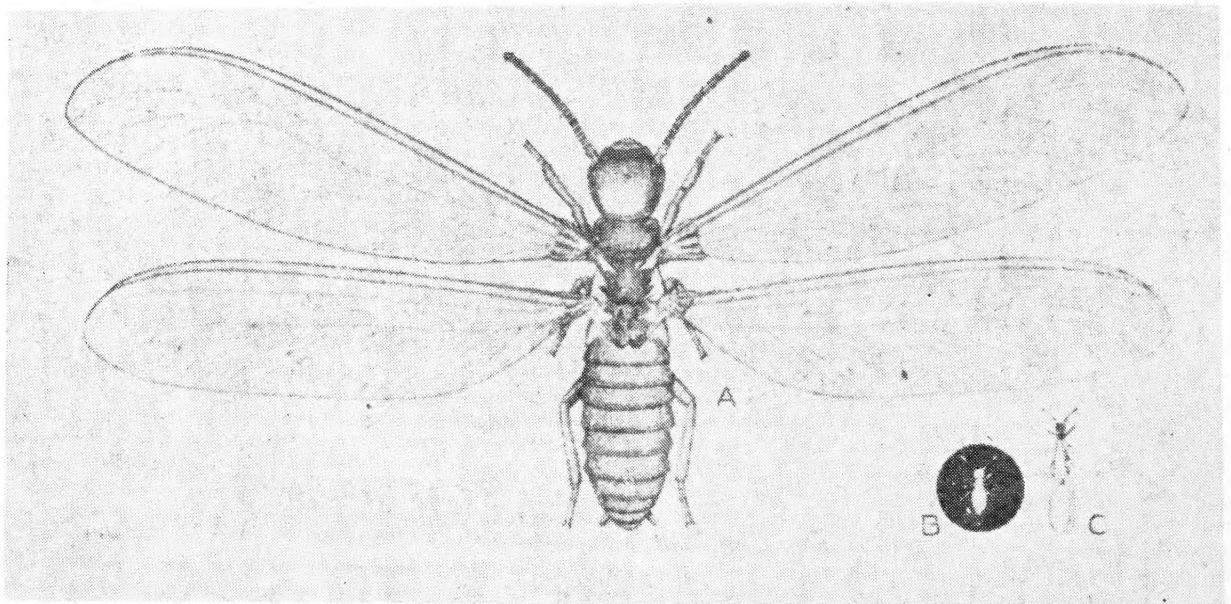
# FOREWORD

With the thousands of homes that have been treated with TERMITGAS\* — a liquid — for the past many years and with 100% satisfaction, we are confident that if you will follow the simple directions in this pamphlet, you will have done a job worth while for the little effort, and you will know the satisfaction of having rid your home of termites.

TERMITGAS\* — a liquid — is sold throughout the U. S. It meets every requirement for the destruction of termites. Should further questions arise, DO NOT hesitate to call or write to our chemists ~~and entomologists~~ who will answer your every problem — gratis.

You are equipped to take care of this menace to your home and, with TERMITGAS\* — a liquid you DO IT YOURSELF. TERMITGAS\* is safe — non-inflammable — it destroys termites and it saves \$\$\$\$\$\$!

## THE SUBTERRANEAN TERMITE



**Fig. 1—A, primary reproductive (queen), many times actual size, with wings spread in unnatural position. The broad waist, straight antennae, and indistinct veins of the wings distinguish the termite from the ant. B, worker, natural size. C, primary reproductive (queen), natural size, with wings in normal resting position.**

**References ; U.S.Dept. of Agriculture, Washington, D.C.  
N.J.Agr.Exp. Station, Rutgers Univ. New Brunswick, N.J.  
The University of California, Berkeley, California.  
Natural History Survey, State of Illinois.  
Ohio State University, Columbus, Ohio.  
Louisiana State University, Baton Rouge, La.  
and numerous other scientific sources.**



# Important Points and Facts To Remember

**THE TERMITES** that are giving you trouble are the **SUB-TERRANEAN** i.e., they live (nest) in the ground, and, in order to obtain food (wood) the Termites construct tunnels over masonry, brick and other materials to the nearest point of wood. (more fully explained below)

**DESTROY THEM IN THE GROUND — THOSE REMAINING IN THE WOOD WILL DIE.** (more fully explained below)

**EASILY ACCOMPLISHED WITH TERMITGAS** (a liquid).  
**YOU DO THIS YOURSELF AT LITTLE EXPENSE AND LABOR.**

"THE SUBTERRANEAN TERMITES" that we are interested in destroying are soil-inhabiting insects which feed upon wood, paper, and similar cellulose materials.

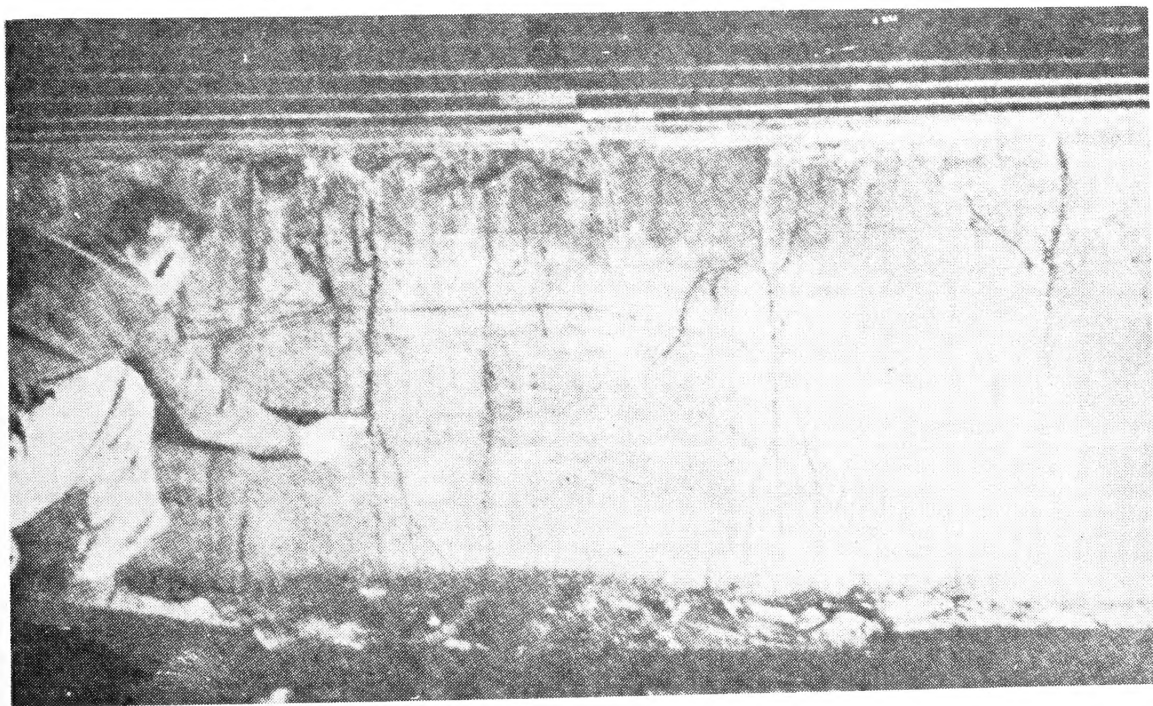
Termites live in colonies which often consist of many hundreds or even thousands of insects. Well-established colonies contain several different kinds of individuals, the most important of which are the reproductive forms; the protective forms or soldiers; and the workers, whose business it is to construct the tunnels and tubes and to keep the colony supplied with food in the form of cellulose. The young, the workers, the soldiers, and some of the reproductive forms are white or cream-colored, blind, soft-bodied insects which cannot withstand the drying effect of exposure to the air. They never leave the protection of their tunnels in the soil and the wood or the shelter of the tubes that the workers construct across the surface of materials through which they cannot tunnel. The other reproductive forms develop a hard, black skin which can withstand exposure to the air, and they are provided with two pairs of wings. Usually a colony produces a swarm of these black, winged reproductives in the early spring. They emerge from the colony, fly about, mate, and lose their wings in the course of a few hours. They endeavor to set up new colonies, but only a very small number ever succeed in doing so.

These Termites must always be in touch with moist earth (moisture). The Queen Termite, the eggs, and the young are always in the nest in the ground, which nest is connected by tunnels or other runways, developed by them, and remember, always with moisture in their insect intellects.

**TERMITGAS—a liquid—is based on the theory of the diffusion of gases of heavy volatile compounds (liberating a gas heavier than air under normal temperature and pressure of the air) the resultant gas being highly toxic to Termites.**

**TERMITGAS** infiltrates into the ground to a depth of 3 to 5 feet and is very toxic to termites.

*Moisture is essential to termite life. Tunnels connect underground termite colony in earth with structural members of house*



**Fig. 2—Look for these tunnels (the thickness of a lead pencil) that the termites may have created over the walls or foundation (especially around the window sills in your garage or basement of your home. Follow these tunnels down into the ground). Break them up. They will crumble by simply touching with any instrument. Give these a good application of Termitgas using your oil can. At the bottom of these tunnels if there are no crevices or cracks—use your cold-chisel as directed in method 2.**

## HOW YOU SHOULD RECOGNIZE THE PRESENCE AND WORK OF TERMITES IN YOUR HOME, BUILDINGS, PORCHES, GARAGES, STAIRWAYS LEADING INTO THE HOUSE, CELLAR DOORS, ETC., AND ANY STRUCTURE OF WOOD.

The sudden appearance on a spring day of a swarm of winged insects inside the house is the most common indication of the presence of termites.

Even though the actual flight of these adults is not observed, the presence of their discarded wings is a positive indication of a well-established colony nearby. These discarded wings are often found on the floor beneath doors or windows where termites have emerged within a building and have been unable to escape.

A second indication of termites is their damage to wood. The distinctive feature about the work of termites is the fact that they actually consume the wood as food, leaving no residue other than excreta spots. In sheathing and trim the termites often remove so much of the wood that only a thin shell is left. This may look perfectly sound, but the damage will come to light when one tries to scrape the wood before painting or to drive a nail into it. It is important to determine, if possible, whether termites are still active.

The Species of Termite occurring in New Jersey\*—New York-Long Island,\* The New England States, Middle Atlantic States, and Southern States, is the Eastern Subterranean Termite (*Reticulitermes flavipes* Kollar).

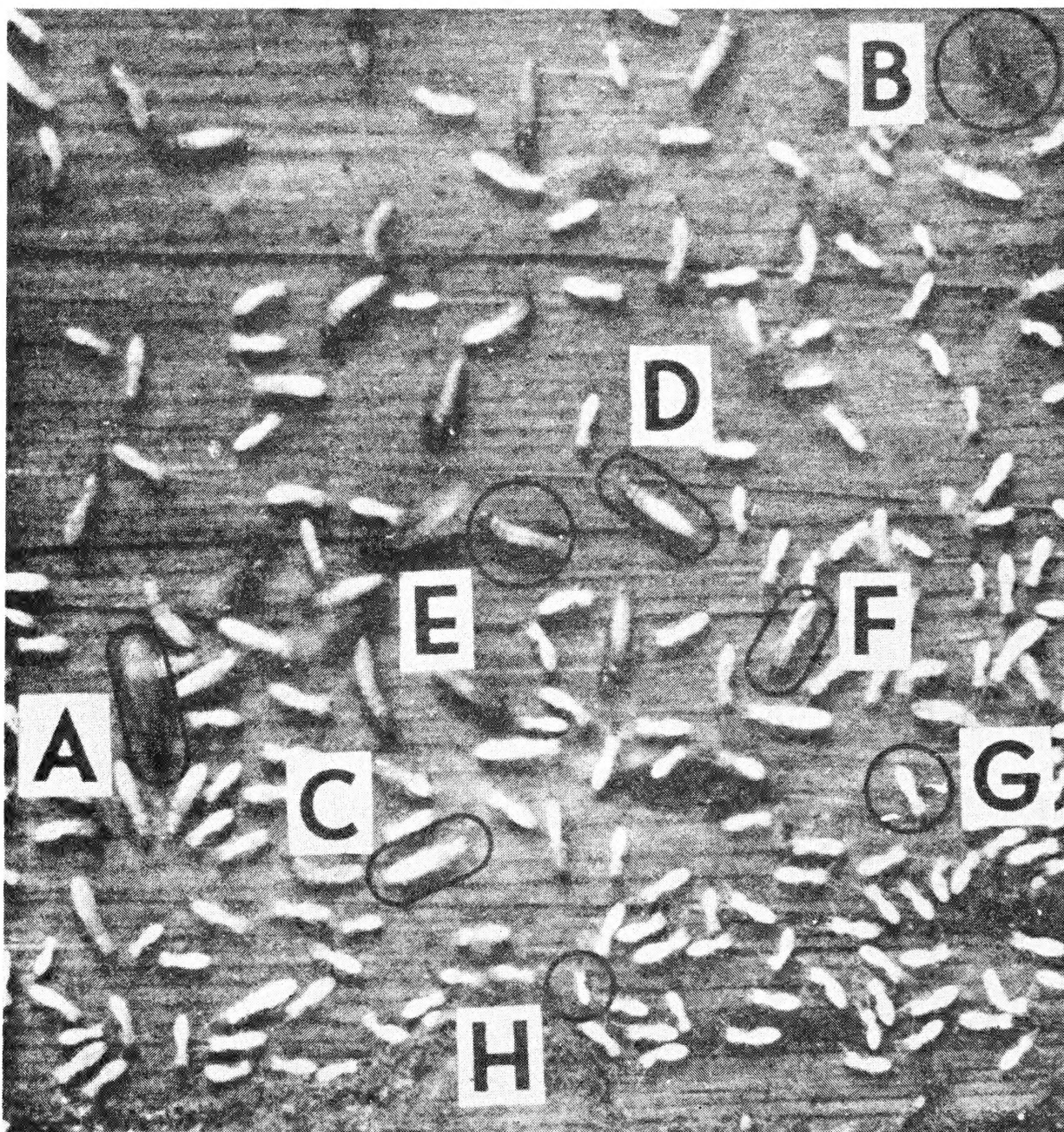
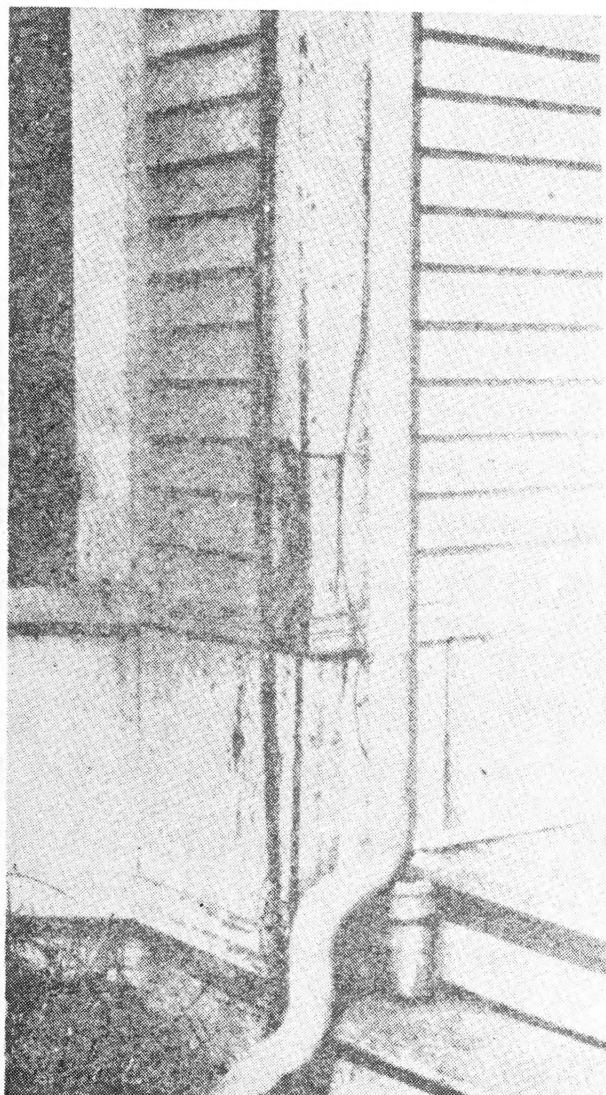


Fig. 3—Termite forms or castes. A, swarming reproductive with wings; B, swarming reproductive with wings removed; C, young swarming reproductive; D, secondary female reproductive; E, secondary male reproductive; F, soldier; G, worker; H, nymph or young.

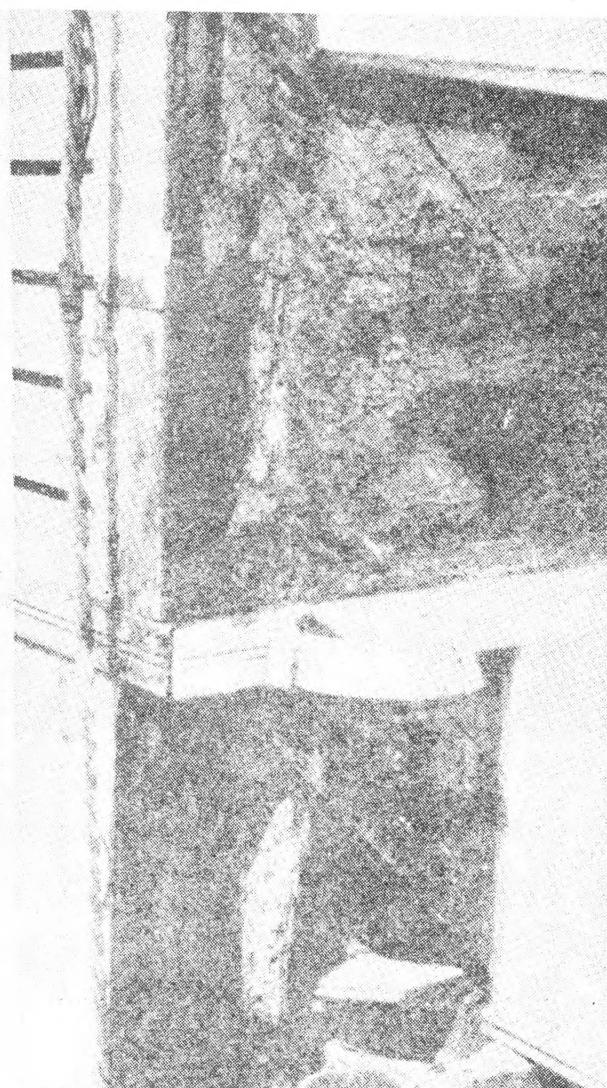


## THE SOURCE OF FOOD FOR TERMITES IS WOOD (CELLULOSE)

Termite infestation may also be evidenced by the presence of earth-like shelter tubes, which these insects may construct over the surfaces of foundation walls or other materials to afford additional runways between the soil and their source of food. These tubes vary in size and shape, being from one-fourth to one-half inch or more in width and flattened against the supporting surface. They serve as covered passageways between the wood and the essential moisture in the soil and protect the termites from the drying effect of direct exposure to the air. Termite damage to wood is often not evident from the exterior. Cracks or holes in mortar or cinder blocks are utilized by Termites and tunneling on the surface may be absent. Careful inspection will soon disclose their source.



**Fig. 4—Evidence of termite damage from the outside of a building, which is usually inconspicuous.**



**Fig. 5—Siding removed from the same building to reveal extent of damage to the sill, studding, and subsiding.**

At the bottom of this damage, Figure 4 or 5, a shallow trench should be dug (as explained under Method 1). At the bottom of this trench, apply Termitgas.\* Give it a fair application, and as you are replacing the trench with earth, gradually add more and more Termitgas, until the trench is refilled. You will find that the Termitgas infiltrates into the ground to a very considerable depth, and is not alone deadly to Termites but to many species of ant life. A gallon of Termitgas is amply sufficient for ~~ten~~ linear feet of Trench.

**DO IT YOURSELF!**



# METHOD No. 1 . . . FOR DWELLINGS, BUNGALOWS, OUTDOOR BUILDINGS, PORCHES and GARAGES, etc., resting on the ground



Fig. 6 The Lewis Trench Method;



Lewis Trench Method;

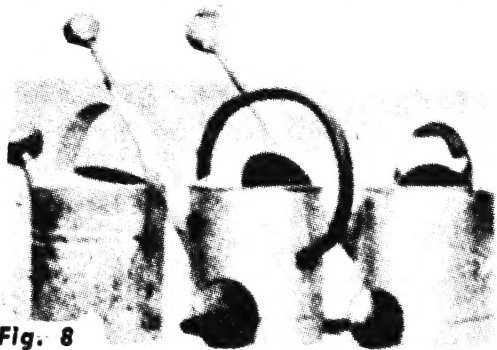


Fig. 8

We recommend from experience the trench method. This is very simple requiring no experience or technique. Take the average garden shovel and dig a trench about 6 inches away from your foundation to the depth of your shovel, and with the point of the shovel pointing towards the foundation of wooden supports, thus forming an angle of  $15^{\circ}$ . At the bottom of this trench, apply Termitgas.\* Give it a fair application, and as you are replacing the trench with earth, gradually add more and more Termitgas, until the trench is re-filled with earth. Dig this trench along all foundation wall **IN THE INFESTED AREA.\*** You will find that the Termitgas infiltrates into the ground to a very considerable depth, and is not alone deadly to Termites but to many species of ant life. A gallon of Termitgas is amply sufficient for ~~ten~~ linear feet of Trench.

## FOR SIMPLICITY

From experience, we have found the average gardener's watering can an excellent receptacle for the Use of Termitgas. Remove the spout, fill the can with Termitgas, and use where required.

**CAUTION:** IF YOU SHOULD HAVE VALUABLE BASE PLANTINGS THAT HAVE BEEN planted smack up to your foundation. and directly in the path of your trench—**TRANSPLANT THEM.** TERMITGAS IS DEADLY TO PLANT LIFE AND VEGETATION.

Termitgas is a highly penetrating liquid. It liberates as a volatile liquid a heavy gas, and like other powerful insecticides, adequate ventilation should be used in its application in confined quarters such as cellars, etc. We suggest opening of the windows or other air vents when used indoors. Termitgas must be confined in its application to soil treatment **ONLY.** **DO NOT SPRAY WALLS, FURNITURE, ATTICS, CLOTHING, KITCHEN CABINETS.** Since **TERMITES DO NOT EXIST IN THESE ITEMS.** **DO NOT USE IN A CELLAR WHERE A HOT AIR HEATING SYSTEM IS USED.** **USE ONLY AS DIRECTED IN METHODS 1-2.** **TERMITGAS IS NON-INFLAMMABLE.** **KEEP TERMITGAS OFF HIGHLY POLISHED**

**APPLY IT YOURSELF****NON-INFLAMMABLE**

**METHOD No. 2 . . . FOR HOUSES, BUNGALOWS, OUTDOOR BUILDINGS, PORCHES, GARAGES, STAIRWAYS LEADING INTO THE HOUSE, ETC., CELLAR DOORS AND ANY OTHER WOODEN CONTRIVANCE: WHERE THE SAME HAS BEEN BUILT ON SOLID CEMENT BLOCKS - CONCRETE FOUNDATION - HOLLOW CEMENT BLOCKS - BRICK FOUNDATIONS - WINDOW SILLS - HOUSES AND BUNGALOWS BUILT OF WOODEN SUPPORTS OR PILINGS.**



Fig. 9



Fig. 10

The Lewis trench method is excellent. Should you have Cement driveways running smack up to the foundation of your house or garage, etc., or should your cellar or your garage have cement floor, where you cannot use a shovel to dig a trench, our recommendation is as follows: Take a cold-chisel and drive some holes into your cement, starting 'about six inches away from the foundation, and with the point of your cold-chisel pointing towards the foundation thus forming an angle of  $15^{\circ}$ . Into each hole, with an oil can, pour Termitgas. Give it a fair amount (about 3 pts.). Replace the hole with dirt or a little cement—Make these holes at distances of about eighteen inches, and REMEMBER ONLY IN THE INFESTED AREA.

Look for tunnels (the thickness of a lead pencil) that the termites may have created over the walls or foundation (especially around the window sills in your garage or basement of your home. Follow these tunnels down into the ground). Break them up. They will crumble by simply touching with any instrument. Give these a good application of Termitgas using your oil can. At the bottom of these tunnels if there are no crevices or cracks—use your cold-chisel as directed above.

A gallon of Termitgas is amply sufficient for ~~ten~~ linear feet of trench.

## METHOD No. 2 . . . continued

**Fig. 11—When the concrete floor of a porch adjoining a house prevents easy treatment of the soil beneath.**



Take a cold-chisel and drive some holes into your cement, starting about six inches away from the wall. Into each hole, with an oil can, pour Termitgas. Give it a fair amount (about 3 pts.). Replace the hole with dirt or a little cement —Make these holes at distances of about two feet, and **REMEMBER ONLY IN THE INFESTED AREA.**



**Fig. 12—Treatment of basement floors for the control of termites vary with the type of floor. In concrete floors, holes should be made with a star drill every 2 or 3 feet along the foundation walls, around the heating unit, and at the base of door frames and step runners. Termitgas should then be applied through the holes to the soil beneath. After this, the holes should be filled with cement.**



Where Hardwood floors are laid over concrete the best way to treat such infestation is to remove some of the flooring **ONLY** where infestation is evident—examine the walls for termite tubes, and if present apply Termitgas (with a mechanic's oil can) along the cracks down into the ground. The soil must then be treated with Termitgas. (Either by the trench method, or using a star drill as already described.) Where wood flooring is badly damaged, replacement is necessary. Your good judgment plus our Termitgas should solve this problem.

## Spot Treatment

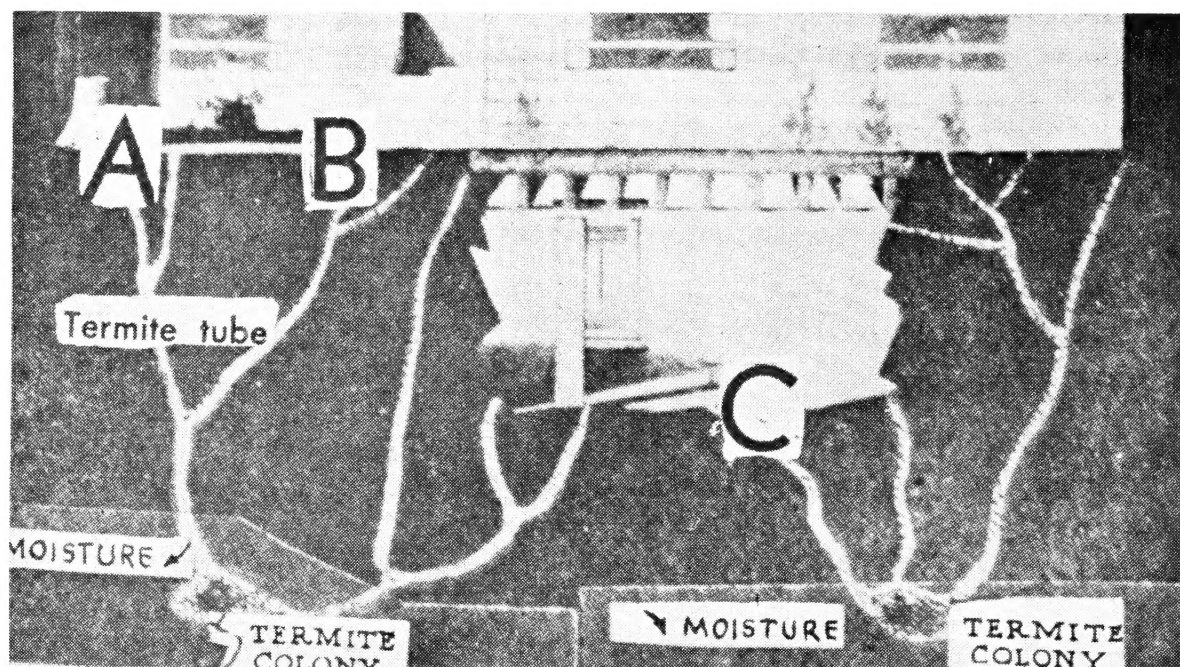


Fig. 13

The above illustration shows the possible entrance into your home of Termites. From experience, few homes are completely surrounded by Termites, and in most cases, they are in spots they may be under your porch, a window casing, stairs etc. They may enter from the ground thru Termite tubes into points A or B or C etc. At these points into your woodwork their food is the Cellulose (heartwood) returning to their Termite colony in the ground, which is supplied with moisture from the ground. This migration back and forth from the wood to their colony is continuous and has been explained on Page 2. At any of these points A, B, or C, evidence of the presence of Termites existing at any of these points has been given you. First, by examination of the woodwork, second—by observation of flights of winged insects, and third—by discarded wings. These have been discussed on pages 2 and 3. Let us assume that a flight of winged insects was observed by you at point A. (in and around a window sill) Solution; Examine the woodwork—if necessary, remove a piece of this woodwork. Note if any damage to wood is noticeable. Examine both on the outside and inside for any signs of bulges or tunnels that the Termites may have created from the ground up into the woodwork. With the point of a knife, break open this tube. See if signs of Termites are visible. Follow this to the ground, and proceed as explained on pages 4, 5, or 6; using whichever method is most convenient and applicable. REMEMBER—TERMITGAS MUST BE APPLIED INTO THE GROUND., and wherever Termitgas is applied, it must be covered over with dirt and tamped down. These have been fully explained. Spraying Termitgas over wood is not necessary. KILL THE TERMITES in the ground, those that remain in the wood will die, from lack of contact with the ground.



## AN INSECT MISTAKEN FOR A TERMITE

Insects are often suspected of being termites because they are found in wood or are found swarming about the house during the spring of the year, which is the usual swarming time for termites. Powder-post beetles, fig. 14, cause considerable damage to wood, fig. 15. They make small, round holes from the interior to the surface of the wood, each hole representing an emergence opening made by an adult beetle. The female beetle deposits her eggs in the exposed wood pores; the larvae tunnel through the wood, reducing it to a powder. Often small piles of powdered wood are found on the surface of hardwood floors or beneath timbers infested with powder-post beetles. Subterranean termites, do not make such holes or piles of sawdust, and the galleries of subterranean termites never contain wood powder.

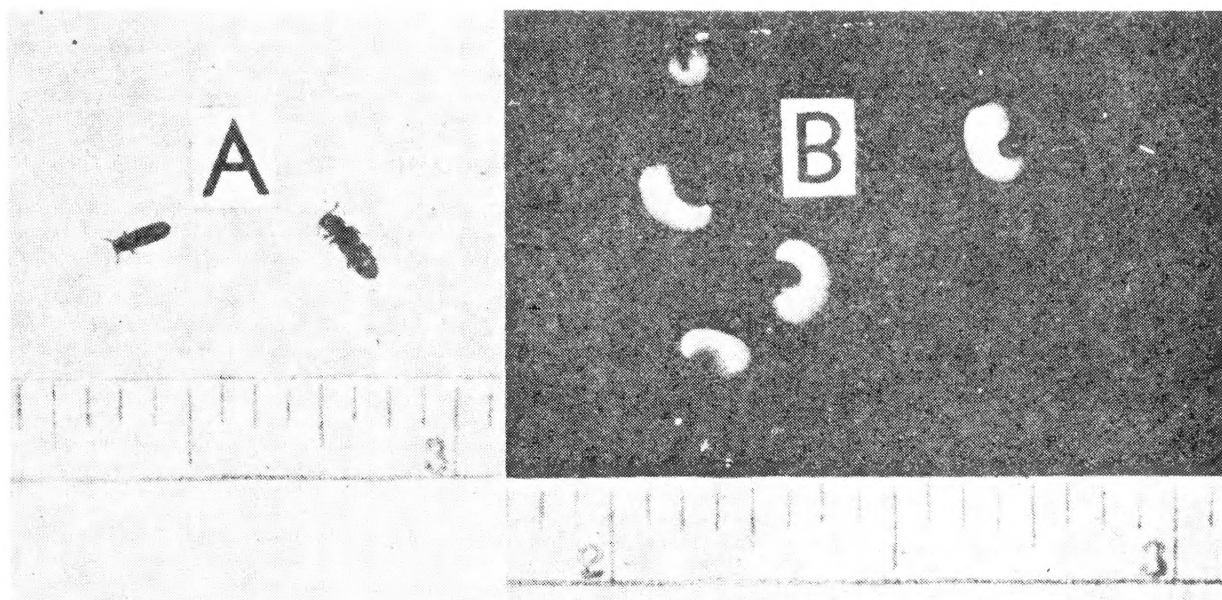


Fig. 14—A, adults, and B, larvae, or young, of the powder-post beetle, *Lyctus cavicolis* Le Conte.

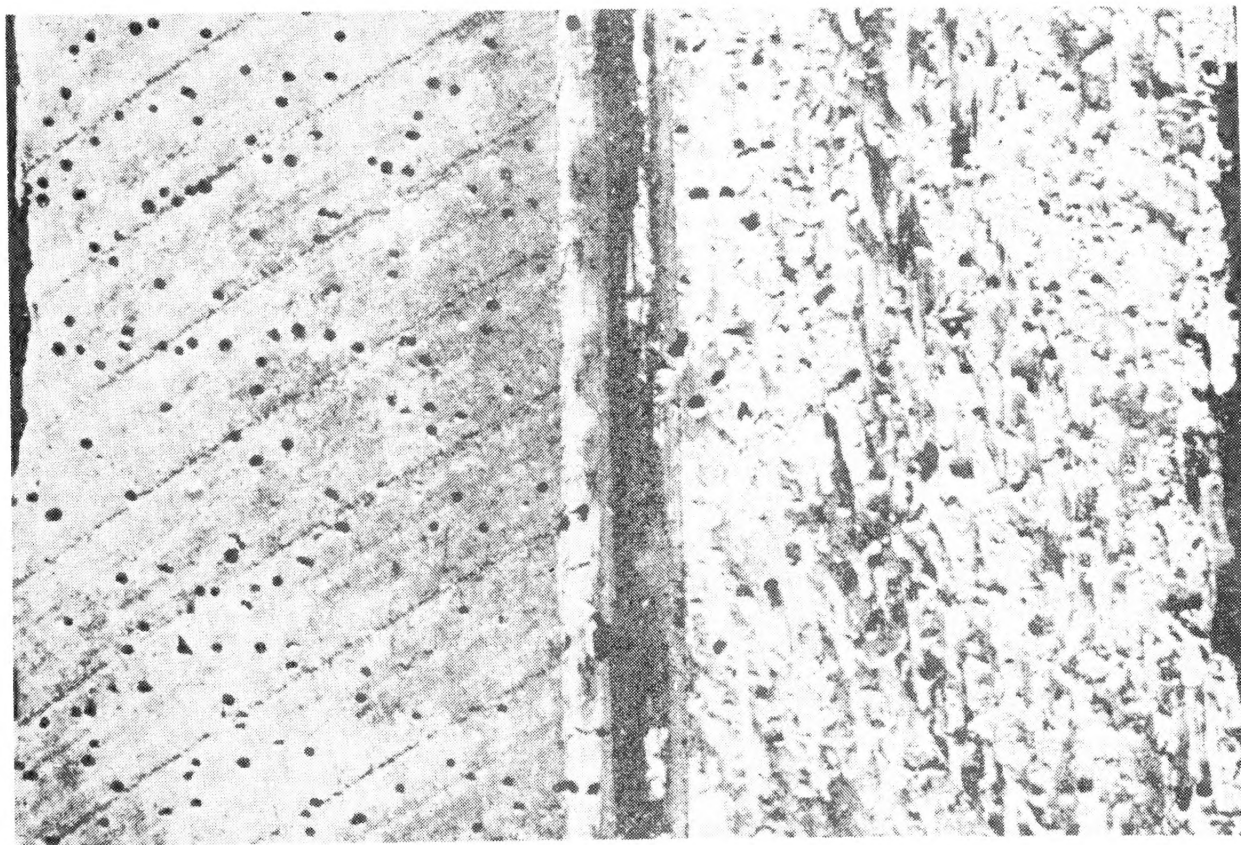


Fig. 15—Views of the outside (left) and inside (right) of a timber heavily damaged by powder-post beetles. Unlike these beetles, termites never fill their galleries with finely powdered wood; nor do they make numerous round exit holes to the surface of the wood.

continued on back cover



## TREATING WOODWORK OF BUILDINGS AND FURNITURE PREVENTING DAMAGE BY LYCTUS POWDER-POST BEETLES

In the case of powder-post damage to the timbers, interior woodwork, or furniture in buildings, the infested wood should be drenched with Termitgas with a brush, saturated rag, or mop, or if this is impracticable, the timbers should be sprayed with this liquid.

If Termitgas is used as a spray, it is advisable to open up the house, since there is an odor to the chemical which may prove disagreeable in a closed room. Also, in spraying timbers overhead care should be taken not to let the liquid drip down, since it might slightly burn the face and hands and would be especially injurious if it got into the eyes.

The Termitgas treatment is likely to remove the finish from the woodwork or furniture. After the treatment, if no further evidence of the insects appears, the wood can be refinished if necessary.

Avoid getting TERMITGAS or its mixtures on your skin or eyes. Should any accidentally contact your skin or eyes, bathe them with Boric Acid Solution (the eyes) and to relieve a mild skin irritation, apply solution of Bicarbonate of Soda in water. Rubbing alcohol mixed with equal part of water is very beneficial.

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